

REMARKS

This amendment is in response to the Office Action, Dated March 28, 2005, ("Office Action"). It is respectfully submitted that the application is in condition for allowance. Claims 1-153 were rejected in the Office Action. Claims 1 to 153 have been amended, claims 27, 63, 135 have been cancelled. Following entry of the present amendment claims 1-26, 28-62, 64-134, 136-153 are pending. No new matter has been added. Allowance and reconsideration of the application in view of Applicants' amendment and the ensuing remarks is respectfully requested.

Claims 1, 30, 45, 65, 80, 93, 108, 148 have been amended to include the limitations of currently canceled claim 27; claims 2-26, 28, 31-44, 46-62, 64, 66-79, 81-92, 94-107, 109-134, 136-147, and 149-153, have been amended to adjust claim dependency and correct obvious typographical errata therein.

Claims 1-154 were provisionally rejected as being obvious over claims 1-136 of co-pending Application Nos. 09/655,185 and 09/654,822. Applicants note that 09/654,822 has been issued as US Patent No. 6,799,199. Applicants respectfully traverse this rejection. However, while Applicants in no way concede that Examiner's rejection is proper, two terminal disclaimers with respect to the co-pending application and the issued patent are included herewith.

Examiner rejected Claims 1-6, 24, 27, 30-34, 45-48, 50, 65-69, 80-84, 93-97, 108-112, and 148-153 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,381,594 ("Eichstaedt").

The Examiner found that the Eichstaedt patent "teaches a system and method for real time alert...comprising the steps of: receiving an information packet; said information packets either provided by an information source or representative of a portion of a received signal provided by an information source; extracting at least one extracted term out of the information packet; determining whether an extracted term out of said at least one extracted term matches an alert term, and accordingly updating a matching term information representative of a reception of matching extracted terms, an

alert criteria comprising of at least one alert term, said matching term information being stored in a storage means that is configured to allow fast insertion and fast deletion of content; processing at least a portion of the matching extracted term information to determine to issue an alert; and issuing at least one alert to at least one client system, according to said determination," (internal citations omitted) and thus rejected claims 1, 24, 27, 30, 45, 65, 80, 93, 108 and 148. Examiner additionally stated that the Eichstaedt patent "teaches the portion of the matching extracted term information is determined by at least one alert criteria," providing the basis for rejection of claims 2, 3, 31, 32, 46, 47, 66, 67, 81, 82, 94, 95, 109, 110, and 149. Examiner further stated that Eichstaedt teaches "matching during a predetermined period of time," thus meeting the limitations of claims 4, 33, 48, 68, 83, 96, 111, and 150. Examiner also stated that Eichstaedt teaches "a reception of an information packet is followed by the steps of storing the information packet with an associated packet identifier in the storage means, storing extracted term information representative of a reception of at least one extracted term at the storage means, at least one extracted terms extracted from the information packet, and linking between the stored information packet and the extracted term information," which anticipated claims and 5, 34, 50, 69, 94, 97, 112, 148-153. Examiner finally stated that Eichstaedt teaches "a term index data structure" as the storage means, resulting anticipation of claim 6. With respect to claim 27 which has been canceled by virtue of the present amendment, this rejection is rendered moot. With respect to claims 1-6, 24, 30-34, 45-48, 50, 65-69, 80-84, 93-97, 108-112, and 148-153, this rejection is respectfully traversed.

As amended, claims 1-6, 24, 30-34, 45-48, 50, 65-69, 80-84, 93-97, 108-112, and 148-153, describe a method or a system for real time alert. The steps include, *inter alia*, receiving an information packet; extracting a term from the information packet; determining whether the extracted term matches an alert term, and accordingly updating a matching term information representative of a reception of matching extracted terms, an alert criteria comprising at least one alert term; processing at least a portion of the matching extracted term to determine whether to issue an alert; and issuing an alert to a client system, according to the determination, *wherein the alert*

comprises of at least one field selected from the group consisting of an information source identifier field, a link field, and an information source category identification.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP §2131 (citing *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)). Furthermore, a patent cannot be relied upon as anticipatory to the extent that the scope of its disclosure does not reasonably suggest those aspects relied upon in the reception. See *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10USPQ2d 1843 (Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989); MPEP §2123.

The Eichstaedt patent refers generally to a system and method for forming a compact representation of a plurality of user queries to find desired information in an information network and to form a master search query to match the master query with information in a content stream. Eichstaedt specifically stated that its method is contrary to the traditional information retrieval approach of indexing a collection of documents separately for each user query. (See abstract and summary of invention.)

Particularly, Claims 1, 30, 45, 65, 80, 93, 108, and 148, have been amended to include limitations relating to the alert to comprise of at least one field selected from the group consisting of: an information source identifier field, a link field, and an information source category identification. Eichstaedt simply "transmits the information retrieved from the search to the appropriate user" and "notification messages are sent to users whose queries have a match..." (Col. 4, lines 53-55; col. 11, lines 27-28). Eichstaedt does not teach an alert comprising a source identifier field, a link field, or an information source category identification. Furthermore, Eichstaedt does not disclose a step of generating information packets from an information stream.

Claims 2-6, 24, 31-34, 46-48, 50, 66-69, 81-84, 94-97, 109-112, and 148-153, depend on and further limit one of the above claims, therefore, they are not anticipated for at least the same reasons.

Additionally, Eichstaedt only generally teaches matching the information content stream to the master search query. (Col. 5 lines 38-43, and col. 9, line 60 to col. 11, line 63.) In contrast, claims 2, 3, 31, 32, 46, 47, 66, 67, 81, 82, 94, 95, 109, 110, and

149 relate to using at least one alert criterion to determine the portion of the matching extracted term information to be processed.

Furthermore, with respect to claims 4, 33, 48, 68, 83, 96, 111, and 150, Eichstaedt does not teach matching during a predetermined period of time, as asserted by Examiner (Col. 11, lines 32-57). Eichstaedt provides for a method utilizing a binary search tree, where the time it takes to complete the operation is a function of the height of the binary search tree. Eichstaedt makes no mention of matching during a predetermined period of time.

Moreover, as to claims 5, 34, 50, 69, 84, 97, 112, 148-153, Eichstaedt only teaches storing the results of the matching operation in the memory, (see col. 4, lines 38-47, col. 9, lines 37-51) and makes no mention of linking between the stored information packet and extracted term information. Moreover, Examiner's use of Eichstaedt as a basis to reject claim 152 is unclear and thus Applicants respectfully request clarification. Nonetheless, claim 152 is dependant on and further limits amended claim 148, and thus should be allowable as well.

Finally, as to claim 6, referencing a term index data structure as a storage means, Eichstaedt only refers to the use of a data tree structure to store user queries (col. 11, lines 32-57), whereas the present invention utilizes alert terms index tables, consisting of two main units, an alert terms hash and an message hash. (See Specification pages 22-23.)

In light of the foregoing remarks, Applicants respectfully submit that claims 1-6, 24, 27, 30-34, 45-48, 50, 65-69, 80-84, 93-97, 108-112, and 148-153, are not anticipated by Eichstaedt (US 6,381,594). Applicants therefore respectfully request that Examiner withdraw this rejection under 35 U.S.C. §102(e).

Claims 7-21, 26-28, 32-33, 35-40, 43, 44, 49, 52-59, 62, 63, 70-75, 85-90, 98-103, 112-114, 116-129, 134-136; were rejected under 35 U.S.C. §103(a) as being unpatentable over Eichstaedt, and further in view of U.S. Patent No. 6,296,368 ("Diamond"). With respect to claims 27, 63, and 135 which have been canceled by virtue of the present amendment, this rejection is rendered moot. With respect to claims

7-21, 26, 28, 32-33, 35-40, 43, 44, 49, 52-59, 62, 70-75, 85-90, 98-103, 112-114, 116-129, 134, and 136, this rejection is respectfully traversed.

Examiner found that Eichstaedt-Diamond teaches the claimed invention and further teaches "the step of matching is preceded by adding control data to the information packets, filtering the plurality of information packets, processing the extracted terms by adding control information to the extracted terms, filtering the extracted terms to generate filtered extracted terms, and storing an extracted term in a term index data structure" because the terms are "parsed, stemmed and filtered to remove certain words."

Examiner continued and stated that Eichstaedt-Diamond teaches "the extracted terms are extracted out of the plurality of information packets by parsing and stemming the plurality of information packets; and wherein the step of filtering further comprises a step selected from a group consisting of discarding the terms constructed of one-letter words, discarding the terms constructed of frequently used words, discarding said terms constructed of stop-word, and discarding the terms constructed of predefined words," because the terms are "parsed, stemmed, and filtered to remove certain stop-words and various other critical words and phrases."

Examiner additionally stated that Eichstaedt-Diamond teaches "a deletion of an information packet is followed by a step of deleting the linked extracted term information," because "when the terms are deleted, all information and data is deleted as well."

Examiner further stated that Eichstaedt-Diamond teaches "the extracted term information comprising of at least one information field selected from a group consisting of a last modification time field,...a number of channels containing term,...a total instances field, ...and terms inverted entries map..." and teaches "each inverted file entry comprising of at least one field selected from a group consisting of a channel identifier, ...instance number,...and time of last appearance, ..." and "each information packet is further associated to a message terms key map, ... comprising of a plurality of message characteristic entries, ... associated to an extracted term being extracted from the information packet, said message characteristic entry comprising of at least one of

the following fields selected from a group consisting of a term inverted file, ...an instance of number, ... and an inverted file entry..." because "[m]atch column contains the total number of items the extracted term was found."

Examiner also stated that Eichstaedt-Diamond teaches "using a terms inverted file system to organize the queries, inserting an information source identification where the information source provided the extracted term."

Examiner additionally stated that Eichstaedt-Diamond teaches "wherein an information source is selected from a group consisting of data network providers, chat channels providers, news providers, and music providers; group of text, audio, video, multimedia, and executable code streaming media; wherein the step of matching further involves a step of computing a similarity between a client query and a group of at least one information packet and further wherein the group of at least one information packet comprising of at least one information packet received from a single information source," because "the search processor inherently separates each stream white [sic] it checks them in order to determine the source of the matching information."

Finally, Examiner stated that Eichstaedt-Diamond teaches "the similarity reflects at least one parameter selected from a group..." because, "[t]he search processor inherently separates each stream white [sic] it checks them in order to determine the source of the matching information [and m]atch column contains the total number of times the extracted term was found.

Three basic criteria must be met to establish a prima facie case of obviousness: (1) "there must be some suggestion or motivation...to combine reference teachings," (2) "there must be a reasonable expectation of success," and (3) the prior art references "must teach or suggest all the claim limitations." MPEP §2142.

For the reasons set forth above, Eichstaedt does not teach or suggest all of the claim limitations, as amended.

Furthermore, Diamond provides background information that matching of documents to a query is based on the co-occurrence of words or phrases. Diamond generally teaches the addition of control data and indexing, which involves extracting terms from the text, checking for stop words, processing hyphenated words, and then

stemming all inflected terms to a standard form (col. 1, lines 21-36, col. 10, lines 13-19, 32-34, and 40-49). However, Diamond does not disclose filtering the information packets, filtering the extracted terms and matching the filtered extracted terms against the alert terms, or discarding terms as required by claims 7 and 8.

Further, Diamond only teaches a removal of words and phrases from the query processing stream, and thus the removed words and phrases are not used as search terms. In contrast, the present invention relates to the deletion of an information packet, followed by deleting the linked matching extracted term information.

Eichstaedt-Diamond does not teach storing alert criteria in an alert criteria map and storing information packets in a message hash, as claimed in claims 10, 36, 52, 71, 86, 99, and 117. However, Examiner's use of Eichstaedt-Diamond (Eichstaedt, col. 8, lines 12-67), as a basis for rejection of claims 32-33, 62, 112-114, and 121-23, is unclear and thus Applicants respectfully request clarification. Nonetheless, claims 32-33, 62, 112-114, and 121-123 are dependant on and further limits amended claims 30, 45, 108 and 148, and thus should be allowable as well.

Eichstaedt-Diamond merely teaches the use of a match column during processing to indicate when a query in the query ID column matches any incoming information content. (Eichstaedt, col. 9 lines 42-44.) In contrast, claims 11-13, 37-39, 53-55, 72-74, 87-89, 100-102, and 118-120, (wherein a matching extracted term information associated to a single matching extracted term) claim specific fields (e.g., a last modification time field, a number of channels containing term, a total instances field, a terms inverted entries map) and subfields (e.g. a channel identifier, an instances number, a time of last appearance). Furthermore, the information packets of the present invention are further associated to a message terms key map comprising of a plurality of message characteristic entries. Additionally, Examiner's use of Eichstaedt-Diamond (Eichstaedt, col. 9, lines 42-44), as a basis for rejection of claims 49 and 124, is unclear and thus Applicants respectfully request clarification. Nonetheless, claims 49 and 124 are dependant on and further limits amended claims 1 and 108, respectfully, and thus should be allowable as well.

While Diamond teaches the use of a terms inverted file system to organize the terms, it does not teach the steps of deleting an information packet as claimed in claims 14, 15, and 56.

Eichstaedt neither teaches the deletion of an extracted term by a garbage collection process, nor does it teach a deletion of an object in a tree index results in deletion of the links in a linked list structure. Eichstaedt utilizes a binary search tree to implement a search. Moreover, Eichstaedt concedes that if the height of the search tree is large, the performance of searching may be no better than a linked list. (Eichstaedt, col. 11 lines 32-57).

Eichstaedt-Diamond does not teach the format from which an information packet content is selected. (Eichstaedt, col. 3 lines 30-54) The present invention identifies that the content may be selected from text, audio, video, multimedia, and executable code streaming media. Eichstaedt simply teaches that a master query is matched with incoming information stream, and does not teach the method of matching, such as computing a similarity between a client query and a group of information packets, as presented by the claims of the present patent application. (Eichstaedt, col. 4 lines 38-47).

Eichstaedt's search processor may inherently separate each information stream and the match column may contain the total number of times a keyword was present in the information stream. However, Eichstaedt does not teach having parameters, such as total amount of extracted terms, number of relevant extracted terms, total number of information sources, position of relevant extracted terms, extracted term's proximity to a relevant extracted term, part of speech of a relevant extracted term and matching extracted term frequency and importance in language, to determine the similarity between a client query and a group of information packets.

In light of the foregoing remarks, Applicants respectfully submit that claims 7-21, 26, 28, 32-33, 35-40, 43, 44, 49, 52-59, 62, 70-75, 85-90, 98-103, 112-114, 116-129, 134, and 136 are not unpatentable over Eichstaedt (US 6,381,594), in view of Diamond (US 6,269,368). Applicants therefore respectfully request that Examiner reconsider and withdraw this rejection under 35 U.S.C. §103(a).

Claims 22, 23, 41, 42, 51, 60, 61, 76-79, 91, 92, 104-107, 130, 131, 137-147, were rejected under 35 U.S. C. §103(a) as being unpatentable over Eichstaedt-Diamond, and further in view of U.S. Patent No. 6,574,632 ("Fox").

Examiner stated that Fox "teaches complex matching techniques including: probabilistic matching, fuzzy matching, proximity matching, and vector based matching." Examiner stated that "implementing the numerous matching techniques of Fox in the search engine system of Eichstaedt-Diamond, Eichstaedt-Diamond would have been able to provide more accurate and reliable query results." Furthermore, Examiner asserted that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Fox in the system of Eichstaedt-Diamond because by implementing the specification...the users of Eichstaedt-Diamond system can now access the same retrieval system through multiple precisions algorithms giving the user more options and more control of the system." Examiner also stated that Eichstaedt-Diamond-Fox teaches "wherein the storage means is a term index data structure." Examiner further stated that Eichstaedt-Diamond-Fox teaches "wherein the group of at least one information packet comprising of at least one information packet received from a single information source," because "[t]he search processor inherently separates each stream white [sic] it checks them in order to determine the source of the matching information." With respect to claims 22, 23, 41, 42, 51, 60, 61, 76-79, 91, 92, 104-107, 130-131, 137-147, this rejection is respectfully traversed.

Three basic criteria must be met to establish a prima facie case of obviousness: (1) "there must be some suggestion or motivation...to combine reference teachings," (2) "there must be a reasonable expectation of success," and (3) the prior art references "must teach or suggest all the claim limitations." MPEP §2142.

For the reasons set forth above, Eichstaedt and Diamond do not teach or suggest all of the claim limitations, as amended. Applicants agree with Examiner that Fox teaches complex matching. However, while Applicants in no way concede that Examiner's combination of references is proper herein, even if the combination is proper, the cited combination of references – supplementing the aforementioned

references with information regarding matching techniques – still does not teach or suggest all of the limitations of Applicants' claims.

In light of the foregoing remarks, Applicants respectfully request reconsideration and withdrawal of this rejection under 35 U.S.C. §103(a).

All of the claims remaining in the application are now believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Applicants enclose herewith a Change of Correspondence Address notice and respectfully request that Examiner please direct any future correspondence in connection with this matter to the undersigned at the address associated with the Customer Number specified therein (and reprinted below).

If questions remain regarding this application, the Examiner is invited to contact the undersigned at (213) 633-6800.

Respectfully submitted,

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Enclosure:

Postcard

Change of Correspondence Address Notice

Petition for Extension of time (three months)

Terminal Disclaimer with respect to pending application No. 09/655,185

Terminal Disclaimer with respect to prior patent No. 6,799,199

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